

CLAIMS

What is claimed is:

1. A method of treating a neoplastic disease in a subject, the method comprising:
administering to a subject having a tumor a pharmaceutically acceptable salt of an
inorganic selenium-containing compound (iSe compound) in an amount effective to alter a
reduction-oxidation state of a tumor cell toward oxidation; and
administering a cancer therapy other than an iSe compound to the subject;
wherein the neoplastic disease in the subject is treated.
2. The method of claim 1, wherein the iSe compound is inorganic selenite.
3. The method of claim 1, wherein the cancer therapy is administered after
administering the iSe compound.
4. The method of claim 1, wherein the neoplastic disease is prostate cancer.
5. The method of claim 1, wherein the cancer therapy is radiation therapy.
6. The method of claim 5, wherein the radiation therapy is external beam radiation
therapy, brachytherapy or systemically targeted radiation.
7. The method of claim 1, wherein the cancer therapy is a chemotherapeutic agent.
8. The method of claim 1, wherein said administering of the iSe compound is
intravenous, tumor targeted, intratumoral, or peritumoral.
9. The method of claim 1, wherein the iSe compound is administered for a time
sufficient for metabolism of the iSe compound prior to administering the cancer therapy.

10. A method of enhancing sensitivity of a tumor in a subject to a cancer therapy, the method comprising:

administering to a subject having a tumor a pharmaceutically acceptable salt of an inorganic selenium-containing (iSe) compound in an amount effective to sensitize the tumor to a cancer therapy; and

administering the cancer therapy to the subject;

wherein administration of the iSe compound is effective to enhance sensitivity of the tumor to the cancer therapy.

11. The method of claim 10, wherein inorganic selenium-containing compound is inorganic selenite.

12. The method of claim 11, wherein the cancer therapy is a reactive oxygen species (ROS)-inducing therapy.

13. The method of claim 12, wherein the ROS-inducing cancer therapy is a radiotherapy.

14. The method of claim 12, wherein the ROS-inducing cancer therapy is a chemotherapeutic drug or a biological response modifier.

15. A method of treating prostate cancer, the method comprising:

administering to a subject having prostate cancer a pharmaceutically acceptable salt of an inorganic selenite; and

administering a cancer therapy other than inorganic selenite to the subject;

wherein administering the inorganic selenite and the cancer therapy provides for a synergistic effect in prostate cancer cell growth inhibition to treat the prostate cancer.

16. The method of claim 15, wherein the cancer therapy is a reactive oxygen species (ROS)-inducing therapy.

17. The method of claim 16, wherein the ROS-inducing cancer therapy is a radiotherapy.

18. The method of claim 17, wherein the ROS-inducing cancer therapy is a chemotherapeutic drug or a biological response modifier.